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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,478	12/10/2003	Yoshihiro Kobayashi	1232-5228	7673

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MORGAN & FINNEGAN, L.L.P.
3 WORLD FINANCIAL CENTER
NEW YORK, NY 10281-2101

EXAMINER

LAM, HUNG H

ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 11/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/733,478

Applicant(s)

KOBAYASHI ET AL.

Examiner

Hung H. Lam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/10/2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. Figure 4 and 5 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Park (US-5,477,271).

Regarding claim 1, Park discloses an image sensing apparatus which comprises:

an image sensing device (an image sensor is inherently included in a video camera; col. 2, lines 50-54) which generates an image sensing signal (col. 3, lines 1-2) by photoelectrically converting light from an object;

an extraction device (HPF 41, Fig. 4) which extracts a predetermined frequency component (col. 5, lines 23-24; col. 5, lines 38-40) from a signal component corresponding to a focus detection area in a frame (detection areas 62 and 64, Figs. 5A) sensed by said image sensing device (col. 5, lines 40-44);

a weighting device (44, Fig. 4) which weights the predetermined frequency component (col. 5, lines 29-47, lines 56-63) extracted by said extraction device (41);

an evaluation value calculation device (accumulator 46, error detection 48, Fig. 4) which acquires a piece or pieces of information (col. 5, lines 30-33; col. 6, lines 60-62) from an output from said weighting device (44); and

a driving device (focus driver 50, Fig. 4) which drives the focusing lens to an in-focus point (col. 6, line 60-62) on the basis of a signal extracted by said evaluation calculation device (col. 6, lines 40-62).

Regarding claim 2, Park discloses the apparatus wherein a weighting factor calculated by said weighting device (44) changes in a predetermined number of steps

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from a peripheral portion (64, Fig. 5A) to a central portion (62, Fig. 5A) of the focus detection area (col. 6, lines 1-7).

Regarding claim 3, Park discloses the apparatus wherein the weighting factor (0, 0.5, 1, Figs. 5A and 5B) and the predetermined number of steps (weighting values in Table 2 of col. 6) can be independently set in horizontal and vertical directions of the frame (the horizontal and vertical directions are inherited from the surrounding area 64, Figs 5A and Fig 5B; col. 6 line 2-7).

Regarding claim 4, Park discloses the apparatus wherein the focus detection area comprises a plurality of focus detection areas (col. 4, lines 66-67; col. 5, lines 1-5), and said weighting device(44) performs relative weighting processing (col. 5, lines 55-64; col. 6, lines 1-8) between the adjacent focus detection areas(62, 64, Figs. 5A and 5B).

Regarding claim 5-8, they are method claims corresponding to the apparatus claim 1-4, respectively. Therefore, claims 5-8 are analyzed and rejected as previously discussed with respect to claims 1-4.

Regarding claim 9, Park discloses a program (col. 7, lines 1-5) causing a computer to execute an auto focus method defined in claim 5.

Regarding claim 10, Park discloses a storage medium computer-readably storing a program (storage medium is inherently needed to store software) defined in claim 9.

Regarding claim 11, all the limitations are contained in claim 1. Claim 11 further requires that the weighting device (44) can independently set weighting factors (weighting values can be changed corresponding to control signal; table 2; col. 6, lines 1-40) in horizontal and vertical directions (the horizontal and vertical directions are inherited from the surrounding area 64, Figs. 5A and Fig 5B; col. 6, lines 2-7).

5. Claim 12 is rejected under 35 U.S.C. 102(b) as being anticipated by Sekine et al. (US-5,561,498).

Regarding claim 12, Sekine et al. disclose an image sensing apparatus which comprises:

an image sensing device (sensor 12, Fig. 6a) which generates an image sensing signal by photoelectrically converting light from an object (col. 5, lines 1-10);

an extraction device (BPF 111, Fig. 6a) which extracts a predetermined frequency component from a signal component corresponding to a focus detection area in a frame (col. 5, lines 56-59; col. 6, lines 12-16) sensed by said image sensing device (12);

a weighting device (distance measuring gate ckt 112, see Figs. 6a) which weights the predetermined frequency component extracted by said extraction device (col. 6, lines 34-59; col. 7, line 7-27). wherein said weighting device performs relative weighting processing between adjacent distance measurement frames (see Figs. 3a-3d; col. 7, lines 55-65; col. 9, lines 30-44).

an evaluation value calculation device (AF control 11, Fig 6a) which acquires a piece or pieces of information (col. 6, lines 12-32) required to control a focusing lens (lens 7) from an output from said weighting device; and

a driving device (AF driving ckt 10, Fig. 6a) which drives the focusing lens to an in-focus point on the basis of a signal extracted by said evaluation value calculation device (AF control 11, Fig. 6a; col. 6, lines 25-33).

Conclusion

6. This prior art made of record and not replied upon is considered pertinent to applicant's disclosed.

a) Ohkawara et al. (US-6,683,652) disclose an interchangeable lens video camera system having improved focusing.

b) Suda (US-5,842,059) discloses an automatic focus adjusting device.

c) Keneda et al. (US-5,629,735) disclose an image sensing device having a selectable focus detecting area.

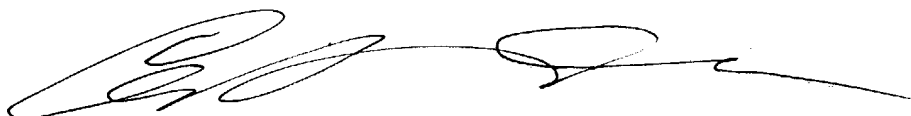
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung H. Lam whose telephone number is 7033058143. The examiner can normally be reached on Monday - Friday 8AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's primary, NGOC YEN VU can be reached on 703-305-4946. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nov. 10, 2004

HL



ANDREW CHRISTENSEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600